REMARKS

Summary of Amendments

Claims 1, 3 and 7 have been amended, and new claim 15 has been added.

The amendments to claim 1 clarify what was meant by the recitation, "susceptor internal surface"; and by clarifying that recitation, the claim 1 amendments in turn clarify the recitation, "formed on a surface different from the surface on which said resistive heating element is formed.

Claim 3 has been amended to clarify the recitation, "said lead circuit three dimensionally intersects."

Claim 7 has been amended to clarify the recitation, "from without."

New independent claim 15 is similar to claim 1, but includes an additional recitation.

Rejections under 35 U.S.C. § 112

Claim 3 was rejected as failing to comply with the enablement requirement, in particular because the recitation "three dimensionally intersects" was regarded as being unclear such that a person skilled in the art would not be able to ascertain to what in the present specification this recitation refers.

Applicants intended this recitation to mean that the claimed lead circuit does not intersect the claimed resistive-heating-element circuit in the same plane in which the resistive-heating-element circuit is disposed. Accordingly, claim 3 has been amended to recite, "the form in which said lead circuit supplies electricity to said resistive-heating-element circuit is non-planar." It is believed that that this recitation should enable a person skilled in the art to practice the invention as described in the specification.

Claim 7 was rejected for indefiniteness in the recitation that power is supplied "from without." For the record, the definition of "without" intended here is as a noun, as defined for example in *The American Heritage® Dictionary of the English Language: Fourth Edition* (2000): "An outer position, place, or area: *a threat to security that came from without.*"

Nevertheless, a lack of clarity in what this "without" is relative to is acknowledged. Accordingly, claim 7 has been amended to recite "electrodes for supplying electric power from outside the susceptor."

It is respectfully submitted that claim 7 now clearly sets forth subject matter among that which Applicants regard as their invention—namely, electrodes configured to supply power from outside the susceptor.

Rejections under 35 U.S.C. § 102

Claims 1-5, 13 and 14; Brukhart et al. '283

Claims 1-5, 13 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,469,283 to Brukhart et al.

Burkhart et al. disclose a heater 112 in a "pedestal assembly" 100, and a heater controller 106, having a power source 312 (Fig. 3), connected to the heater 112. As lines 17-19 in column 3 of Burkhart et al. state, "The power supplied to the heater 112 is coupled through electrical connectors 114 (i.e., wires) from the heater controller 106."

As shown in Fig. 1 of Burkhart et al., the electrical connectors 114 vertically enter the susceptor, bend horizontally at right angles, then bend at right angles again to connect to the heater 112. Thus, it appears that in rejecting claim 1 over Burkhart et al., this section of the Office action is alleging that the electrical connectors 114 in Burkhart et al. can be read as "a lead circuit formed on a surface different from the surface on which said resistive heating element is formed."

Taking into consideration both the rejection of claim 3 made under 35 U.S.C. § 112 and addressed above, and the § 102 rejection just summarized, Applicants have amended claim 1 to clarify what is meant by the phrase "formed on a surface different from the surface on which said resistive heating element is formed." In particular, claim 1 now recites:

> A ceramic susceptor *formed as a laminate* having a frontside for retaining an object being processed *and a backside, the laminate composed of a plurality of ceramic sheets whose sides other than the laminate frontside and backside define susceptor internal surfaces*, the susceptor *laminate* comprising:
>
> a resistive-heating-element circuit formed on one surface selected from *said susceptor backside and said susceptor internal surfaces*; and

> a lead circuit for supplying electricity to the resistive heating element, formed on one surface, *selected from said susceptor backside and said susceptor internal surfaces*, that is different from the surface on which said resistive heating element is formed.

(Emphasis added.) Accordingly, claim 1 now provides an antecedent basis—supported by the portion of the Description section of the present specification that precedes the Embodiments—for the recitation of "susceptor internal surfaces," and by thus clearly claiming internal surfaces in the subject susceptor, claim 1 clearly recites the selection of surfaces on which the lead circuit may be formed.

Accordingly, it is respectfully submitted that Burkhart et al. do not disclose the present invention as now clearly set forth in claim 1, and in particular, that Burkhart et al. do not disclose "a lead circuit . . . formed on one surface, *selected from said susceptor backside and said susceptor internal surfaces*, that is different from the surface on which said resistive heating element is formed."

Rejections under 35 U.S.C. § 103

Claim 6; Burkhart et al. '283 in view of Kojima et al. '056 or Nozaki et al. '681

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Burkhart et al. reference (US 6,469,283) in view of U.S. Patent No. 4,733,056 to Kojima et al. or U.S. Patent No. 5,264,681 to Nozaki et al.

Kojima et al. teach providing a ceramic heater for automobile exhaust-gas sensor applications with a conductor 5 "for retaining ionizing elements," connected with the negative of lead portions 3, 3' that supply power to a heating element 2. The conductor 5

> has a lower electric potential than any other portion of the heating element 2. Hence the conductor 5 for retaining ionized element[s] prevents positively charge ionized elements from migrating toward the lower elect[r]ic potential side through the heating element 2 under an applied D.C. voltage

(column 2, lines 27-32).

Nozaki et al. teach a ceramic heater 10 for diesel engine glow-plug or oil/gas burner applications. The heater 10 has a heating part 10a enclosing a heating resistor 16, and a support part 10b enclosing the portions of lead wires 18 that serve as terminals for soldered connections. The heating part 10a is made of an aluminum-nitride based ceramic, while the support part 10b is made mainly of a silicon-nitride

based ceramic. thus the heating part 10a is "high in heat conductivity, whereas the support part 10b is "low in heat conductivity" (column 3, lines 7-16).

Whether it would have been obvious to adapt the Burkhart et al. configuration with a lead circuit as taught by either the Kojima et al. or Nozaki et al. references is not contested here, because so adapting the Burkhart et al. configuration would produce a device over which claim 1 distinguishes. That is, for the reasons presented above in addressing the § 102 rejection, claim 1 sets forth a device distinct from the Burkhart et al. configuration; therefore the subject matter of claim 1 plus claim 6 distinguishes over the combination of what is taught by Burkhart et al. and either Kojima et al. or Nozaki et al., and notwithstanding whether a motivation to combine these references has been shown.

Claim 7; Burkhart et al. '283 in view of Yamaguchi et al. '811 or Soma et al. '690

Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Burkhart et al. reference (US 6,469,283) in view of U.S. Patent No. 6,376,811 to Yamaguchi et al. or U.S. Patent No. 5,231,690 to Soma et al.

Yamaguchi et al. show lead wires 8, 9 connected to current introducing terminals 5, 6 (column 3, about lines 30 and 50) that from Fig. 1 of the reference appear to be near the center of the ceramic heater 1.

Soma et al. do show lead wires 8, 8 (19 inn other embodiments) "at a center and a peripheral portion of the substrate 6 of a wafer heater 1" (column 5, lines 3-4).

Nevertheless, it is respectfully submitted that for the reasons presented above in addressing the § 102 rejection, claim 1 sets forth a device distinct from the Burkhart et al. configuration, and that therefore, the patentability of the pending claims does not rest in a claim 1 narrowed to incorporate the limitations of claim 7. Consequently, it is respectfully asserted that the rejection under this section is moot.

Claims 8-12; Burkhart et al. '283 in view of Kawanabe et al. '557

Claims 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Burkhart et al. reference (US 6,469,283) in view of U.S. Patent No. 6,133,557 to Kawanabe et al.

Kawanabe et al. does appear to show: a susceptor thickness that, if the plurality of 0.5-mm thick green sheets numbers 10, would be 5 mm or more; a susceptor ceramic whose chief component is silicon or aluminum nitride; and the addition of a sintering aid, such as a rare-earth oxide, Ni compound, rare-earth fluoride or fluoride, in a 0.5 to 20 wt % amount, to the susceptor ceramic.

Nevertheless, it is respectfully submitted that for the reasons presented above in addressing the § 102 rejection, claim 1 sets forth a device distinct from the Burkhart et al. configuration, and that therefore, the patentability of the pending claims does not rest in a claim 1 narrowed to incorporate the limitations of any of claims 8-12. Consequently, it is respectfully asserted that the rejection under this section is moot.

Accordingly, Applicant courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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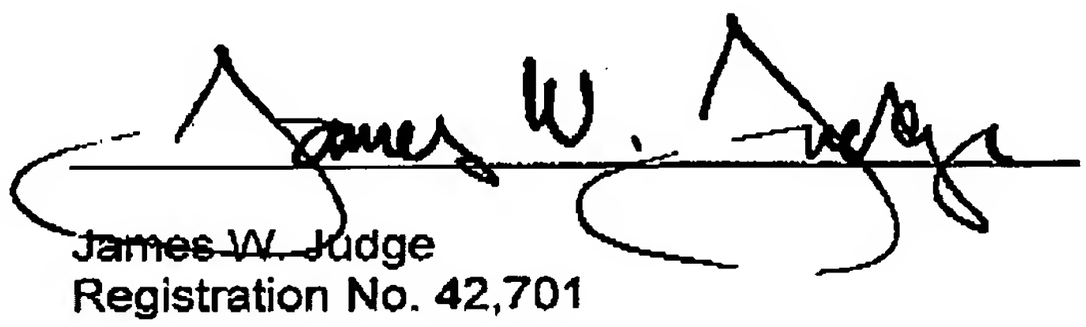

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